

## ABSTRACT

5 The methods of the invention can be used to protect against lymphocyte DNA damage and free-radical associated disorders in a subject. The methods of the present invention can be used to increase the antioxidant capacity in both the aqueous and lipid compartments, decrease DNA oxidation, decrease lipid peroxidation, and increase antioxidant nutrient levels in the circulation. The protective effect of the physiologic dose of the mixed carotenoid supplement is rapid, consistent and cumulative.

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